Gyorgy Karolyi

List of Publications by Year in descending order

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54 papers	1,221 citations	394286 19 h-index	360920 35 g-index
57 all docs	57 docs citations	57 times ranked	736 citing authors

#	Article	IF	Citations
1	Chemical and biological activity in open flows: A dynamical system approach. Physics Reports, 2005, 413, 91-196.	10.3	183
2	Chaotic flow: The physics of species coexistence. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 13661-13665.	3.3	117
3	Advection of Active Particles in Open Chaotic Flows. Physical Review Letters, 1998, 80, 500-503.	2.9	95
4	Chaotic advection, diffusion, and reactions in open flows. Chaos, 2000, 10, 89-98.	1.0	63
5	Rock-scissors-paper game in a chaotic flow: The effect of dispersion on the cyclic competition of microorganisms. Journal of Theoretical Biology, 2005, 236, 12-20.	0.8	58
6	Chemical or biological activity in open chaotic flows. Physical Review E, 1999, 59, 5468-5481.	0.8	51
7	Spatial models of prebiotic evolution: soup before pizza?. Origins of Life and Evolution of Biospheres, 2003, 33, 319-355.	0.8	50
8	Chaotic tracer scattering and fractal basin boundaries in a blinking vortex-sink system. Physics Reports, 1997, 290, 125-147.	10.3	48
9	Wada dye boundaries in open hydrodynamical flows. Physica A: Statistical Mechanics and Its Applications, 1997, 239, 235-243.	1.2	43
10	Competing populations in flows with chaotic mixing. Theoretical Population Biology, 2003, 63, 77-90.	0.5	39
11	A model for resolving the plankton paradox: coexistence in open flows. Freshwater Biology, 2000, 45, 123-132.	1.2	37
12	Dynamics of Finite-Size Particles in Chaotic Fluid Flows. Understanding Complex Systems, 2010, , 51-87.	0.3	37
13	Chaotic advection in blood flow. Physical Review E, 2009, 80, 016213.	0.8	32
14	Doubly Transient Chaos: Generic Form of Chaos in Autonomous Dissipative Systems. Physical Review Letters, 2013, 111, 194101.	2.9	31
15	A chaotically driven model climate: extreme events and snapshot attractors. Nonlinear Processes in Geophysics, 2011, 18, 573-580.	0.6	29
16	Drifting Impact Oscillator With a New Model of the Progression Phase. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	1.1	23
17	Reactive Particles in Random Flows. Physical Review Letters, 2004, 92, 174101.	2.9	22
18	Chemical Transients in Closed Chaotic Flows: The Role of Effective Dimensions. Physical Review Letters, 2005, 95, 264501.	2.9	21

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19	Metabolic network dynamics in open chaotic flow. Chaos, 2002, 12, 460-469.	1.0	19
20	Fractal snapshot components in chaos induced by strong noise. Physical Review E, 2011, 83, 046201.	0.8	19
21	Fractal structures in stenoses and aneurysms in blood vessels. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 5605-5617.	1.6	18
22	Driving a conceptual model climate by different processes: Snapshot attractors and extreme events. Physical Review E, 2013, 87, 022822.	0.8	16
23	Fractality, chaos, and reactions in imperfectly mixed open hydrodynamical flows. Physica A: Statistical Mechanics and Its Applications, 1999, 274, 120-131.	1.2	13
24	Symbolic dynamics of infinite depth: finding global invariants for BVPs. Physica D: Nonlinear Phenomena, 1999, 134, 316-336.	1.3	12
25	Growth induced curve dynamics for filamentary micro-organisms. Journal of Mathematical Biology, 2005, 51, 355-366.	0.8	12
26	Fly-wheel model exhibits the hither and thither motion of a bouncing ball. International Journal of Non-Linear Mechanics, 2009, 44, 905-912.	1.4	12
27	Emerging fractal patterns in a real 3D cerebral aneurysm. Journal of Theoretical Biology, 2015, 368, 95-101.	0.8	12
28	Conservative spatial chaos of buckled elastic linkages. Chaos, 2006, 16, 033111.	1.0	11
29	Effective dimensions and chemical reactions in fluid flows. Physical Review E, 2007, 76, 046315.	0.8	11
30	Are the fractal skeletons the explanation for the narrowing of arteries due to cell trapping in a disturbed blood flow?. Computers in Biology and Medicine, 2012, 42, 276-281.	3.9	11
31	Discrete and nonlocal models of Engesser and Haringx elastica. International Journal of Mechanical Sciences, 2017, 130, 571-585.	3.6	11
32	Fractal scaling of microbial colonies affects growth. Physical Review E, 2005, 71, 031915.	0.8	9
33	Onset of chaotic advection in open flows. Physical Review E, 2008, 78, 016317.	0.8	8
34	Finite-size Lyapunov exponents: a new tool for lake dynamics. Proceedings of the Institution of Civil Engineers: Engineering and Computational Mechanics, 2010, 163, 251-259.	0.4	7
35	Coexistence of inertial competitors in chaotic flows. Chaos, 2006, 16, 043110.	1.0	6
36	SPATIALLY CHAOTIC BIFURCATIONS OF AN ELASTIC WEB OF LINKS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 4011-4028.	0.7	6

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37	New features of doubly transient chaos: complexity of decay. Journal of Physics Complexity, 2021, 2, 035001.	0.9	6
38	On the impact of a rigidâ€“plastic missile into rigid or elastic target. International Journal of Non-Linear Mechanics, 2017, 91, 1-7.	1.4	5
39	Climate change in mechanical systems: the snapshot view of parallel dynamical evolutions. Nonlinear Dynamics, 2021, 106, 2781-2805.	2.7	5
40	Climate change in a conceptual atmosphereâ€“phytoplankton model. Earth System Dynamics, 2020, 11, 603-615.	2.7	4
41	Chaotic advection and fractality: applications in oceanography. , 2007, , .		2
42	Unrevealed part of myosin's powerstroke accounts for high efficiency of muscle contraction. Biochimica Et Biophysica Acta - General Subjects, 2017, 1861, 2325-2333.	1.1	2
43	Overdamped mechanical model of myosin II. Periodica Polytechnica: Civil Engineering, 2013, 57, 11.	0.6	1
44	Stress-free layers in photoinduced deformations of photoelastomer beams. International Journal of Non-Linear Mechanics, 2015, 70, 126-133.	1.4	1
45	Local Effects of Impact into Concrete Structure. Periodica Polytechnica: Civil Engineering, 2016, 60, 573-582.	0.6	1
46	Soft impact of an elongated elasto-plastic missile. International Journal of Mechanical Sciences, 2021, 212, 106804.	3.6	1
47	Spatial and temporal separation in overdamped systems. Periodica Polytechnica: Civil Engineering, 2010, 54, 89.	0.6	1
48	Chaos and nonlinear dynamics: Advances and perspectives. European Physical Journal: Special Topics, 2008, 165, 1-4.	1.2	0
49	Fractals and Chaos in the Hemodynamics of Intracranial Aneurysms. Springer Series in Computational Neuroscience, 2016, , 263-277.	0.3	0
50	Betonszerkezetek kÃ¡rosodÃ¡sa lÃ¶vedÃ©kbecsapÃ³dÃ¡s hatÃ¡sÃ¡ra I. rÃ©sz. Haditechnika, 2021, 55, 65-70.	0.1	0
51	Reactions in chaotic flows. CISM International Centre for Mechanical Sciences, Courses and Lectures, 2009, , 307-322.	0.3	0
52	Internal Lever Arm Model for Myosin II. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2011, , 155-163.	0.1	0
53	Parametric study for aircraft impact. , 2014, , .		0
54	Betonszerkezetek kÃ¡rosodÃ¡sa lÃ¶vedÃ©kbecsapÃ³dÃ¡s hatÃ¡sÃ¡ra. Haditechnika, 2021, 55, 56-59.	0.1	0